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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,736	03/12/2002	Ryo Sakurai	Q68683	9719

7590 08/25/2003
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EXAMINER

NGUYEN, CHAU N

ART UNIT PAPER NUMBER

2831

DATE MAILED: 08/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant N .

Applicant(s)

10/070,736

SAKURAI ET AL. *en*

Examiner

Art Unit

Chau N Nguyen

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jinno et al. (JP5-342918) in view of Tanaka (5,455,383).

Jinno et al. discloses a shielded flat cable comprising a cable body in which a plurality of conductors (1,2) including at least one ground line (2) is covered except at least part of the ground line with an insulating member (3), a shielding member (9) having a shielding layer made of a conductive material (7) formed on one side of an insulating substrate (8) for sheathing the cable body, and an adhesive layer (6) comprising an adhesive with conductive filler, part of the adhesive layer being in contact with a non-covered portion of the ground line for bonding the shielding member to the cable body, wherein the adhesive is a thermally and curable adhesive comprising a resin having heat resistance and

flexibility after curing as a base resin (etc., the resin being an EVA) (re claims 1 and 2).

Jinno et al. does not specifically disclose the conductive adhesive having conductive particles (re claim 1). Tanaka discloses a conductive adhesive comprising an adhesive with conductive particles dispersed therein, wherein the conductive particles are nickel powders (re claims 17 and 18), and wherein the amount of the conductive particles is 1 to 70 parts by weight based on 100 parts by weight of the base resin (re claim 15). It would have been obvious to one skilled in the art to apply the teaching of Tanaka in the conductive adhesive of Jinno et al., such as using nickel powders for the conductive filler in an amount of 1 to 70 parts per 100 parts by weight of the base resin, so that the conductive filler can be uniformly dispersed within the resin to provide an effective shielding member.

Re claim 19, Tanaka discloses a flame retardant film being used as the substrate of the shielding member (see abstract). It would have been obvious to one skilled in the art to use the flame retardant film as taught by Tanaka for the substrate (8) of Jinno's shielding member to provide a flame resistant property for the cable.

3. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jinno et al. in view of Tanaka as applied to claim 1 above, and further in view of Shibata.

Claims 3-5 additionally recite the resin being a polymer obtained by acetalizing a polyvinyl alcohol, wherein the content of the acetal group in the polymer is 30 mol% or more. Shibata et al. discloses a process for producing polyvinyl acetals which can be used as adhesives (col. 1, lines 1-9). Shibata et al. discloses the process comprising acetalizing a polyvinyl alcohol, wherein the content of the acetal group in the polymer is 30 mol% or more.

It would have been obvious to one skilled in the art to use the polymer taught by Shibata et al. for the resin of Jinno et al. since the polymer taught by Shibata et al. has superior moldability or processability.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jinno et al. in view of Tanaka as applied to claim 1 above, and further in view of Lin.

Claim 6 additionally recites the resin being a polyester unsaturated compound soluble in a solvent. Lin discloses a cover tape comprising an adhesive layer which is comprised of a polyester unsaturated compound soluble in a solvent (col. 6, lines 45-51). It would have been obvious to one skilled in the art to use the

resin taught by Lin for the resin of Jinno et al. since such resin is one of the known heat sealable and heat activated elastomers as taught by Lin.

5. Claims 7-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jinno et al. in view of Tanaka as applied to claim 1 above, and further in view of JP10-251606 (JP'606).

JP'606 discloses a conductive adhesive, wherein the resin is mixed with the material as claimed in claims 7-10 and a hydrocarbon resin as claimed in claim 14. It would have been obvious to one skilled in the art to mix the resin of Jinno et al. with the material taught by JP'606 to obtain an adhesive which has high electric conductivity and adhesiveness.

6. Claims 11-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jinno et al. in view of Tanaka as applied to claim 1 above, and further in view of Yoshikawa et al.

Yoshikawa et al. discloses an adhesive (EVA) comprising an organic peroxide in an amount of 0.1 to 10 parts by weight base on 100 parts by weight of the base resin (col. 9, lines 19-42) (re claim 11), comprising at least one reactive compound which is an acryloxy group-containing compound in an amount of 0.5

to 80 pbw per 100 pbw of the base resin (col. 9, line 47- col. 10, line 3) (re claim 12), and comprising a silane coupling agent in an amount of 0.01 to 5 pbw per 100 pbw of the base resin (col. 10, lines 16-28) (re claim 13). It would have been obvious to one skilled in the art to include an organic peroxide (0.1 to 10 pbw), at least one reactive compound (an acryloxy group-containing compound in an amount of 0.5 to 80 pbw), and a silane (an amount of 0.01 to 5 pbw) in the adhesive of Jinno et al. to provide a crosslinking agent and a coupling agent in the base resin and to improve the mechanical strength and adhesive property of the adhesive as taught by Yoshikawa et al.

Yoshikawa et al. also discloses a conductive adhesive in which conductive particles having average particle diameter of 0.1 to 100 μ m is dispersed therein (col. 6, lines 46-48) (re claim 16). It would have been obvious to one skilled in the art to use conductive particles having the particle size as taught by Yoshikawa et al. in the conductive adhesive of Jinno et al. so that the particles can be uniformly dispersed in the resin and provide good electrical continuities.

Response to Arguments

7. Applicant's arguments filed July 2nd 2003 have been fully considered but they are not persuasive.

Applicant states that when an adhesive comprises a main constituent of thermoplastic resin such as polyethylene or polyester, the adhesive strength of such adhesive is largely lowered comparing with that of the thermally or optically curable adhesive comprising EVA (ethylene vinyl acetate) resin. Applicant then argues that the adhesive (6) of Jinno contains a thermoplastic resin as a base resin, therefore the adhesive of Jinno is quite different from that of the present invention. In other words, Jinno does not teach or suggest the adhesive being a thermally or optically curable adhesive comprising a resin having heat resistance and flexibility after curing as a base resin. These arguments are not found persuasive because Jinno does disclose a thermally or optically curable adhesive comprising a resin having heat resistance and flexibility after curing as a base resin. Specifically, Jinno discloses the adhesive (6) comprising EVA, see the English abstract, as a base resin. As stated by the applicant that EVA is a thermally or optically curable resin.

Regarding the Tanaka reference, applicant argues that Tanaka also discloses a thermoplastic resin as a base resin for the adhesive. In response to this argument, it is realized that Tanaka is used only to support the position of using conductive particles in a conductive adhesive so that the conductive particles can be uniformly dispersed within the base resin. Accordingly, Tanaka does not have to disclose the

conductive adhesive comprising EVA as a base resin. Regarding the Lin reference, applicant argues that Lin neither disclose nor suggests at all the distinction between the thermally or optically curable adhesive comprising a base resin of "a polyester unsaturated compound soluble in a solvent" and the adhesive comprising a thermoplastic resin as a base resin. The examiner would disagree because Lin does disclose "polyester unsaturated compound soluble in a solvent" is one of the known heat sealable (thermally curable) and heat activated (thermally activated) materials. Regarding the Yoshikawa et al. reference, applicant argues that the adhesives disclosed by Yoshikawa et al. are quite different from the adhesive, namely thermally or optically curable adhesive, as claimed by the present invention. In response to this argument, it is found that Yoshikawa et al. does disclose adhesives comprising EVA as a base resin, and adding some particular fillers, as claimed in claims 11-13 and 16, would improve the properties of EVA. Regarding the JP'606 and the Shibata references, again the feature of the adhesive comprising EVA as a base resin is disclosed in Jinno, therefore neither JP'606 nor Shibata has to disclose adhesives comprising EVA as a base resin.

Summary

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax

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phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Chau N Nguyen', with a long horizontal flourish extending to the right.

Chau N Nguyen
Primary Examiner
Art Unit 2831